



**CITY OF LODI
COUNCIL COMMUNICATION**

AGENDA TITLE: Adopt resolution to amend the Electric Utility Department Rules and Regulations No. 15 to assess a Transmission & Substation System Charge on new developments outside existing City limits as of August 1, 2006 (EUD)

MEETING DATE: September 20, 2006

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: That the City Council adopt a resolution amending the Electric Utility Department Rules and Regulations No. 15 to establish a new Transmission and Substation System Charge and assess this fee on new developments outside City boundaries as they exist on August 1, 2006.

BACKGROUND INFORMATION: Presently, the cost of constructing new transmission lines and substation facilities for the distribution system is provided by the Electric Utility Department (EUD) without any cost contributions by new developers.

Presently, EUD's existing four (4) distribution substations have sufficient capacity for existing and in-fill development within the city. In the short run, new developments outside existing city boundaries can also be served from existing substations. In the longer run, however, new substations may be required in the west/southwest and/or south/southwest areas of the community to reliably accommodate expanded growth beyond current city boundaries.

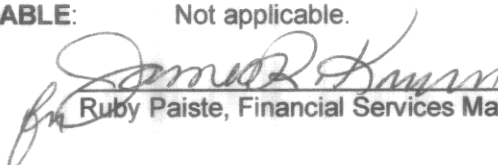
Based on typical EUD substation and transmission facilities design, the estimated cost of constructing a new substation and its associated transmission system is \$7,864,500 (in 2006 dollars). The corresponding cost per kVA (kilovolt-amperes) is \$163.84, which is calculated using the 48MVA (megavolt-amperes) effective capacity of the EUD's standard substation.

Staff recommends the establishment of a Substation and Transmission System Charge to be assessed as a development impact fee upon future EUD electric load outside City boundaries as they exist on August 1, 2006. The initial amount of such charge would be \$163.84 per kVA of computed new electrical load. This charge would be adjusted annually beginning January 1, 2008 based on changes in the Producer Price Index for Electric Power Distribution. [For a typical 200 amp residence (5kVA), the one-time charge would be \$819.20.]

A separate account shall be established under the EUD's Capital Improvement Project (CIP) Fund for the collected fees. This separate fund shall be expended only for the construction of new substation and transmission lines and shall not be commingled with other capital accounts. The proposed amendment to EUD's Rules and Regulations No. 15 (Extension of Facilities) is shown in Attachment A.

FISCAL IMPACT: This action will provide funds for future capital expenditures associated with new substation/transmission facilities.

FUNDING AVAILABLE: Not applicable.

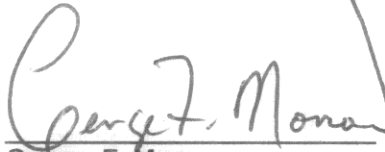

Ruby Paiste, Financial Services Manager

APPROVED: 
Blair King, City Manager

Adopt resolution to amend the Electric Utility Department Rules and Regulations No. 15 to assess a Transmission & Substation System Charge on new developments outside existing City limits as of August 1, 2006 (EUD

September 20, 2006

Page 2 of 2

A handwritten signature in black ink, appearing to read "George F. Morrow", written over a horizontal line.

George F. Morrow
Electric Utility Director

PREPARED BY: Demy Bucaneg, Jr., P.E.

GFM/DB/ist

Attachments

cc: City Attorney



CITY OF LODI

ELECTRIC UTILITY DEPARTMENT

AMENDMENT TO RULE AND REGULATION NO. 15

(EXTENSION OF FACILITIES)

Existing Section D.3 of Rule and Regulation No. 15 is amended by the addition of a new Subsection "c" to read as follows:

D. Line Extensions

3. City's Responsibility:

- c. Furnish and construct transmission line (60kV) and distribution substation facilities to accommodate new development within the service area. The projected costs of such facilities shall be shared proportionately based on the electrical capacity requirements of new electric load, as determined by EUD. These projected costs shall include labor, materials, equipment and infrastructure to construct necessary transmission line and distribution substation facilities.

A "Transmission & Substation System Charge" shall be assessed to new developments and/or electric load outside City boundaries as such boundaries exist on August 1, 2006. The amount of this charge (\$163.84 per kVA of computed new electrical load) shall be documented in the Schedule of Charges attached to EUD's Rules and Regulations.

The amount of the Transmission & Substation System Charge shall be revised annually beginning January 1, 2008 based on the change in the U.S. Department of Labor's Bureau of Labor Statistics' Producer Price Index (PPI) for Electric Power Distribution between the PPI for the month of June of the prior two calendar years. If there is a change in this charge between the time of application for electric service and the actual payment of charges, the charge in effect at the time of payment shall apply.

DRAFT

A RESOLUTION OF THE LODI CITY COUNCIL AMENDING THE ELECTRIC UTILITY DEPARTMENT RULES AND REGULATIONS NO. 15, ESTABLISHING A NEW TRANSMISSION & SUBSTATION SYSTEM CHARGE ON NEW DEVELOPMENTS OUTSIDE EXISTING CITY LIMITS AS OF AUGUST 1, 2006

WHEREAS, presently the cost of constructing new transmission lines and substation facilities for the distribution system is provided by the Electric Utility Department (EUD) without any cost contributions by new developers; and

WHEREAS, presently, the Electric Utility Department's existing four (4) distribution substations have sufficient capacity for existing and in-fill development within the city; and

WHEREAS, in the short-term, new developments outside existing city boundaries can also be served from existing substations, and in the long-term, new substations may be required in the west/southwest and/or south/southwest areas of the community to reliably accommodate expanded growth beyond current city boundaries; and

WHEREAS, based on typical EUD substation and transmission facilities design, the estimated cost of constructing a new substation and its associated transmission system is \$7,864,500 (in 2006 dollars). The corresponding cost per kVA (kilovolt-amperes) is \$163.84, which is calculated using the 48MVA (megavolt-amperes) effective capacity of the EUD's standard substation; and

WHEREAS, staff recommends the establishment of a Substation and Transmission System Charge to be assessed as a development impact fee upon future EUD electric load outside City boundaries as they exist on August 1, 2006. The initial amount of such charge would be \$163.84 per kVA of computed new electrical load. This charge would be adjusted annually beginning January 1, 2008 based on changes in the Producer Price Index for Electric Power Distribution; and

WHEREAS, a separate account shall be established under the EUD's CIP Fund for the collected fees. Fund shall be expended only for the construction of new substation and transmission lines and shall not be commingled with other capital facilities account. The proposed amendment to EUD's Rules and Regulations No. 15 (Extension of Facilities) is shown in Attachment A.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council hereby amends the Electric Utility Department's Rules and Regulations No. 15, establishing a new Transmission and Substation System Charge and approves assessment of this fee on new developments outside City boundaries as they exist on August 1, 2006; and

BE IT FURTHER RESOLVED, that this Resolution shall take effect on December 1, 2006.

Dated: September 20, 2006

I hereby certify that Resolution No. 2006-_____ was passed and adopted by the City Council of the City of Lodi in a regular meeting held September 20, 2006, by the following vote:

AYES: COUNCIL MEMBERS –
 NOES: COUNCIL MEMBERS –
 ABSENT: COUNCIL MEMBERS –
 ABSTAIN: COUNCIL MEMBERS –

JENNIFER M. PERRIN
 Interim City Clerk



***Please immediately confirm receipt
of this fax by calling 333-6702***

CITY OF LODI
P. O. BOX 3006
LODI, CALIFORNIA 95241-1910

ADVERTISING INSTRUCTIONS

SUBJECT: implementation of a new Substation & Transmission System Charge to be assessed as a development impact fee upon future electric utility customers outside existing City boundaries and making corresponding amendments to the applicable Electric Utility Department Rules and Regulations (EUD)

LEGAL AD

PUBLISH DATE: Saturday September 9, 2006

TEAR SHEETS WANTED: Three (3) please

SEND AFFIDAVIT AND BILL TO: JENNIFER M. PERRIN, INTERIM CITY CLERK
City of Lodi
P.O. Box 3006
Lodi, CA 95241-1910

DATED: Thursday September 7, 2006

ORDERED BY: JENNIFER M. PERRIN
INTERIM CITY CLERK

JENNIFER M. PERRIN, CMC
INTERIM CITY CLERK

JACQUELINE L. TAYLOR, CMC
DEPUTY CITY CLERK


DANA R. CHAPMAN
ADMINISTRATIVE CLERK

Verify Appearance of this Legal in the Newspaper – Copy to File

LNS Faxed to the Sentinel at 369-1084 at 300PM (time) on 9/7/06 (date) 2 (pages)
DIANE Phoned to confirm receipt of all pages at 332 (time) JLT DRC JMP (initials)



DECLARATION OF POSTING

implementation of a new Substation & Transmission System Charge to be assessed as a development impact fee upon future electric utility customers outside existing City boundaries and making corresponding amendments to the applicable Electric Utility Department Rules and Regulations (EUD)

On Friday, September 8, 2006, in the City of Lodi, San Joaquin County, California, an implementation of a new Substation & Transmission System Charge to be assessed as a development impact fee upon future electric utility customers outside existing City boundaries and making corresponding amendments to the applicable Electric Utility Department Rules and Regulations (EUD), was posted at the following locations:

Lodi Public Library
Lodi City Clerk's Office
Lodi City Hall Lobby
Lodi Carnegie Forum

I declare under penalty of perjury that the foregoing is true and correct.

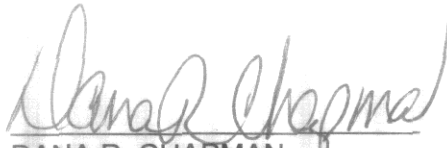
Executed on September 8, 2006, at Lodi, California.

ORDERED BY:

**JENNIFER M. PERRIN
INTERIM CITY CLERK**

JENNIFER M. PERRIN, CMC
INTERIM CITY CLERK

JACQUELINE L. TAYLOR, CMC
DEPUTY CITY CLERK


DANA R. CHAPMAN
ADMINISTRATIVE CLERK



CITY OF LODI

Carnegie Forum
305 West Pine Street, Lodi

NOTICE OF PUBLIC HEARING

Date: September 20, 2006

Time: 7:00 p.m.

For information regarding this notice please contact:

Jennifer M. Perrin
Interim City Clerk
Telephone: (209) 333-6702

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that on **Wednesday, September 20, 2006** at the hour of 7:00 p.m., or as soon thereafter as the matter may be heard, the City Council will conduct a public hearing at the Carnegie Forum, 305 West Pine Street, Lodi, to consider the following matter:

- a) implementation of a new Substation & Transmission System Charge to be assessed as a development impact fee upon future electric utility customers outside existing City boundaries and making corresponding amendments to the applicable Electric Utility Department Rules and Regulations (EUD)

Information regarding this item may be obtained in the Electric Utility Department, 1331 S. Ham Lane, Lodi, (209) 333-6762. All interested persons are invited to present their views and comments on this matter. Written statements may be filed with the City Clerk, City Hall, 221 W. Pine Street, 2nd Floor, Lodi, 95240 at any time prior to the hearing scheduled herein, and oral statements may be made at said hearing.

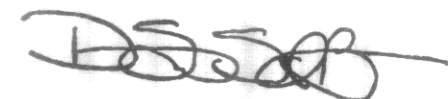
If you challenge the subject matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice or in written correspondence delivered to the City Clerk, 221 West Pine Street, at or prior to the close of the public hearing.

By Order of the Lodi City Council:


Jennifer M. Perrin
Interim City Clerk

Dated: September 6, 2006

Approved as to form:



D. Stephen Schwabauer
City Attorney



Electric Utility Department

Public Hearing

Transmission & Substation System Charge

September 20, 2006



Background

- Many electric utilities have moved to full cost recovery models for new load
- A major cost element of electric system expansion relates to new substations and associated transmission
- Presently, EUD's four existing substations have sufficient capacity for existing and in-fill growth
- In short run, new development/load outside present City limits can be served
- In the longer run (5 to 15 years), new substations in southwest and/or south/southeast may be necessary

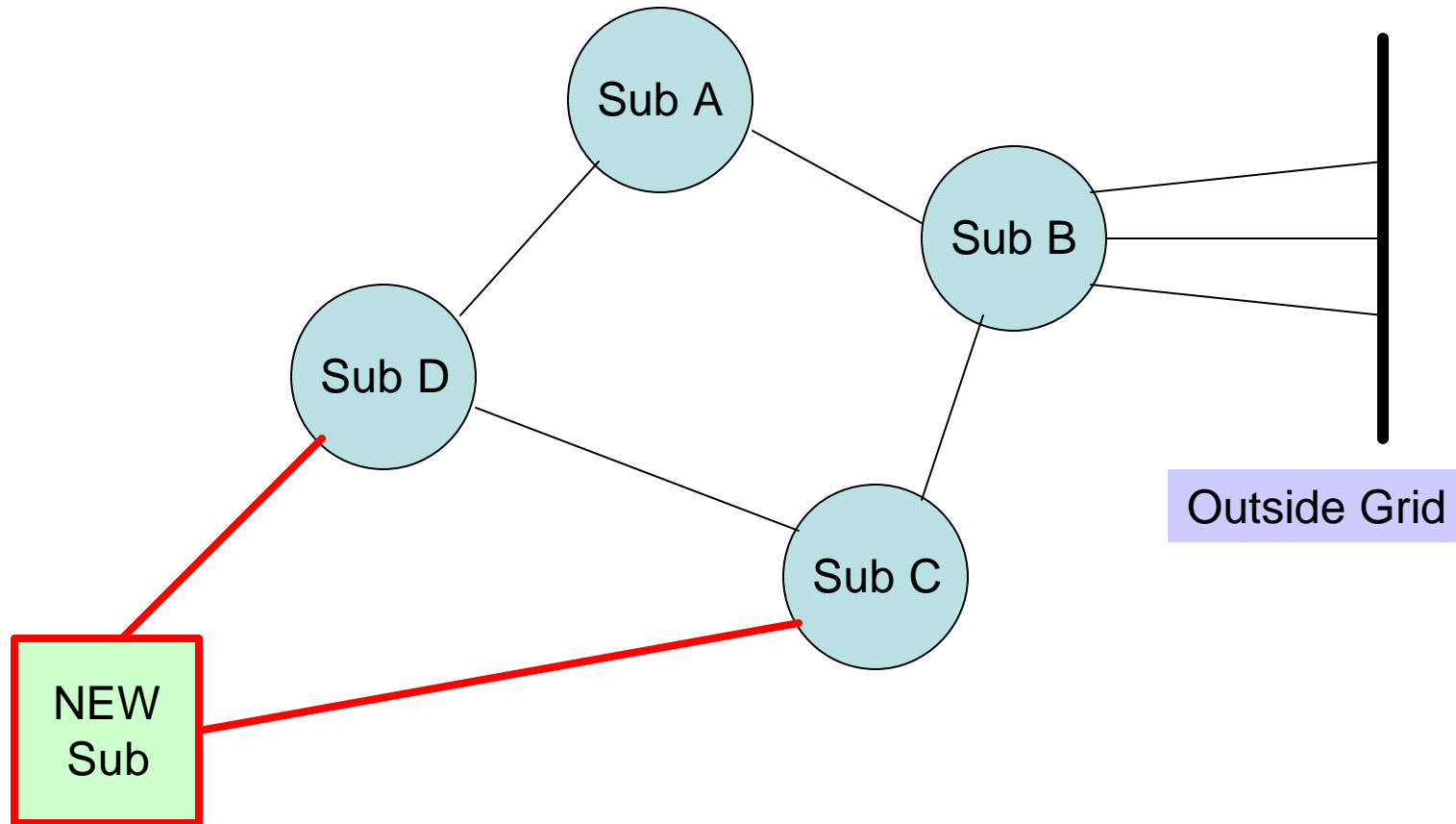


Substations





Electric Systems





Recommendation

- EUD recommends adoption of a “Substation & Transmission System Charge”
- Would apply to new electric development/load outside City boundaries as they exist on 8/1/06
- These fees would be set aside in a separate account only for stated purposes
- Initial rate of \$163.84 per kilovolt ampere (kVA) of connected load
- Charge to be updated annually based on Producer Price Index (Electric Distribution Facilities)
- Proposed December 1, 2006 effective date



Customer Impact

- Fee payment amount varies based on connected electric load
- Typical new home is 5 kVA, resulting in a one-time charge of about \$820
- At the upper end, a 1000 kVA manufacturing plant would be charged about \$164,000

A new substation (with transmission) would cost ~\$7.8 million.

Calculation

I. 60kV to 12kV Distribution Substation:

| | | | | |
|--|--|--------------------------------|--------------|----------|
| | | Effective Capacity = | 48.00 | MVA |
| | | No. of Distribution Feeders = | 8 | Circuits |
| | | No. of Power Transformers = | 2 | Units |
| | | Substation Lot Size = | 40,000 | sq ft |
| | | Distribution Substation Cost = | \$ 7,444,500 | |

II. 60kV Transmission Line:

| | | | | |
|--|--|---|------------|-------|
| | | Typical Line Length to the Substation = | 5.00 | miles |
| | | 60kV Transmission Cost = | \$ 420,000 | |

III. Typical Distribution Substation Facility Cost:

| | | | | |
|--|--|--|------------------|--------|
| | | Total (Substation + Transmission) Cost = | \$ 7,864,500 | |
| | | | | |
| | | Cost per kVA = | \$ 163.84 | 2006\$ |



Questions/Comments







Electric Utility Department

Public Hearing

Net Metering & Co-energy Metering

September 20, 2006



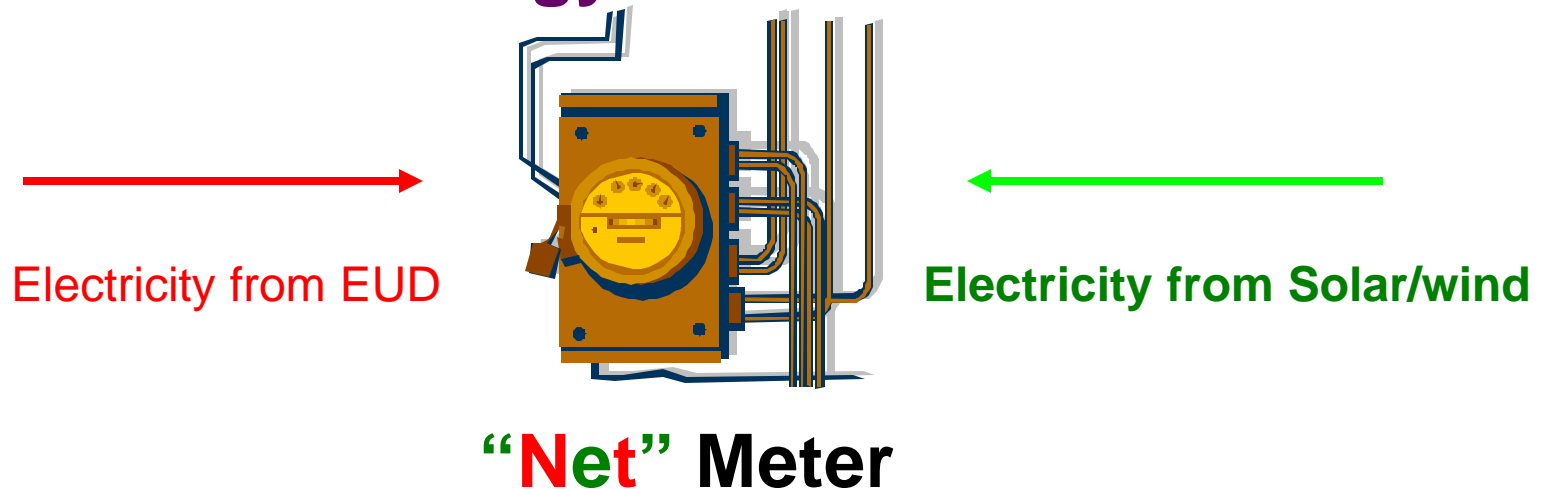
Background

- All CA electric utilities required to purchase solar/wind energy from customers
 - Assembly Bill 58 & SB 1
- Purchases are made through “net metering” except
- For public entities, purchases from solar/wind units over 10 kilowatts in size may be made by “co-energy metering”



Net Metering

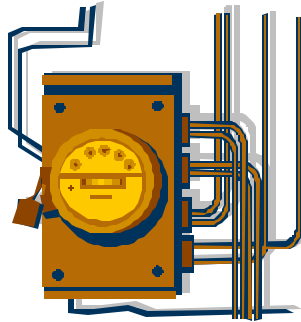
- In purest sense, involves one meter to “net” power delivered to customer from EUD and power purchased from customer by EUD
- As a result, customers receive a price equal to the full retail cost of electricity for solar/wind energy





Net Metering

Electricity from EUD



Electricity from Solar/wind

Electricity priced at full retail rate

Electricity priced at full retail rate

Example for G2 Customer (Summer):

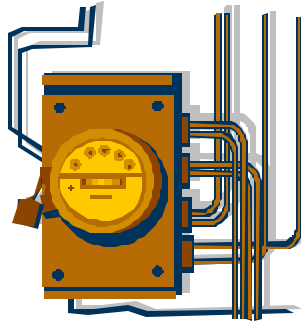
| | |
|---------------------------------------|----------|
| Sales (@ full retail rate) | 15.7¢ |
| Purchases (@ full retail rate) | 15.7¢ |
| Wholesale Energy Price | 7 to 8 ¢ |

Per KWH



Net Metering

Electricity from EUD



Electricity from Solar/wind

Electricity priced at full retail rate

Electricity priced at full retail rate

Example for Residential Customer (Summer):

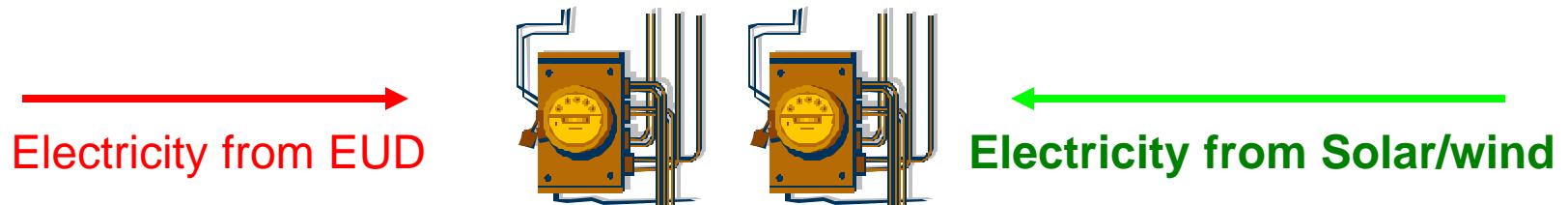
| | |
|---------------------------------------|------------|
| Sales (@ full retail rate) | 14 to 33 ¢ |
| Purchases (@ full retail rate) | 14 to 33 ¢ |
| Wholesale Energy Price | 7 to 8 ¢ |

Per KWH



Co-Energy Metering

- Involves two meters
 - One to measure power delivered to customer from EUD
 - A second to measure power delivered by customer to EUD
- As a result, customers receive a price equal to the wholesale cost of electricity for solar/wind energy
- Proxy for wholesale cost is $\frac{1}{2}$ of net energy charges under applicable rate tariff

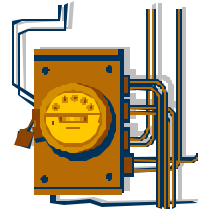
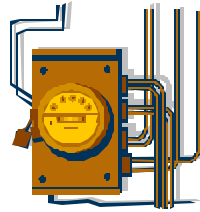


“Co-energy” Metering



Co-Energy Metering

Electricity from EUD



Electricity from Solar/wind

Electricity priced at full retail rate

Electricity priced at $\frac{1}{2}$ of net energy charges under applicable retail rate

Example for G2 Customer (Summer):

| | |
|-------------------------------------|----------|
| Full retail rate | 15.7 ¢ |
| $\frac{1}{2}$ of net energy charges | 7.39 ¢ |
| Wholesale Energy Price | 7 to 8 ¢ |

Per KWH



Other Provisions

- **Public Benefits and Customer Charges are non-bypassable**
- **No payments for customer generation in excess of purchases over annualized period**
- **Requirement for co-metered entities to pay bills on a monthly basis**
- **Requirement to net meter limited to 2.5% of peak load (about 3500 kilowatts today)**



Solar Customers

- Five residential customers at 2 Kilowatts each
- Three commercial units in service (two customers)
 - 5.9 KW, 35 KW and 38 KW
- One additional commercial 30 KW unit is pending
 - Lodi Grape Festival

Worst case “lost” revenue: ~ \$750K/year



Questions/Comments

